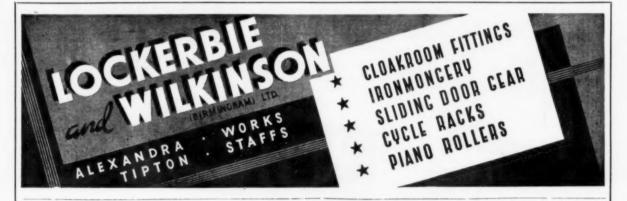
## SCHOOL GOVERNMENT CHRONICLE

REVIEW EDUCATION

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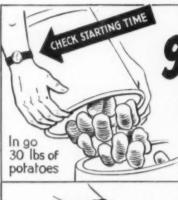
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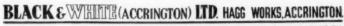
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## SCHOOL GOVERNMENT CHRONICLE

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## Technologists and the Grammar Schools

The Address by the retiring Chairman, Mr. J. G. Tilney-Bassett, M.A., B.Litt. (Grammar School, Poole), to the Incorporated Association of Assistant Masters in Secondary Schools.

The most important educational event in 1956 was the Government's drive to stimulate technical education. It is roughly true to say that up to 100 years ago technical education looked after itself through the apprentice system. The Industrial Revolution made the need for more widespread and broader technical education inevitable. However not until the Great Industrial Exhibition of 1851 did State and people pay any serious attention to the problem.

The Great Exhibition of 1851 revealed to Englishmen that the British monopoly of industrial and scientific skill was being threatened. Though the need for better education to enable us to keep up with our competitors was well-known, though in the years that followed Royal Commissions dis-cussed and reported, little was done.

To-day the world is incomparably more industrialised; the fight for economic survival in a country such as ours is much more desperate. We are moving into an atomic civilisation. Comparisons between the output of scientists, engineers, technologists and technicians in the U.S.A. U.S.S.R., and our own country have precipitated the present concern in high places. The Prime Minister, in January, last said: "The prizes will not go to the countries with the largest population. Those with the best systems of education will win. Science and technical skill give a dozen men the power to do as much as thousands did 50 years ago. Our scientists are doing brilliant work. But if we are to make full use of what we are learning, we shall need many more scientists, engineers and technicians. I am determined that this shortage shall be made good.'

Shortly after this came the White Paper. We have a five-year plan. But will the progress in the late 1950's really match up to the needs of the hour? Will there be the teachers -teachers of sufficient calibre-to meet the crisis?

In 1851 there were in this country only thirty-eight science classes, with 1,300 pupils. By 1861 the numbers studying science had risen to no more than 2,543. Nor was there a supply of teachers to give the necessary instruction. Compulsory elementary education, the Education Act, 1902, the 1914-18 war, the Fisher Act, the growth of industry, all in their different ways promoted the expansion of scientific and technical studies. So that by 1938-39 there were nearly 13,000 full-time university students of science and technology. In 1955-56 there were 29,000, 341 per cent. of the university student population as against 26 per cent. in A not inconsiderable increase. But still not good enough if we compare ourselves with the U.S.A. and the U.S.S.R. In 1954, Great Britain produced 2,800 university graduates in the engineering and applied sciences (or holders of diplomas awarded at universities)-57 per million of the

Comparable figures for the U.S.A. show a production rate of 136 per million for engineering graduates alone, a figure expected by 1964 to be nearly doubled. The output of " professional engineers," in Russia is said to be at the rate of 280 per million. We are, too, falling behind the scientific and engineering manpower of France, Western Germany and Switzerland in proportion to population. On the credit side we produce in proportion to the population about twice as many graduates in pure science, many of whom go into industry.

The Government proposes to raise as soon as possible the capacity of advanced courses in technical colleges from 9,500 to about 15,000. University output also is to be stepped up.

## From Where are the Teachers Coming?

The Ministry, with some complacency, points to the very satisfactory 'increase in numbers in training colleges. Have they pondered the very disquieting report of the "The Supply of Maths, and Science Teachers?" A.T.C.D.E.-The authors of this report (and they should know) assert, Less than 3.8 per cent. of the women training college students study mathematics, a proportion which would leave about six schools in ten without any teacher appreciably qualified in the subject. Though practically all teachers in primary schools and most in modern schools have to teach some maths, yet only 44.3 per cent. of women teachers have reached 'O' level in the G.C.E. and the standard of Arithmetic of many of these is extremely low. The efficiency of the teaching of English and Arithmetic in the primary and modern schools is of the first importance. Where are the technicians and the technologists coming from if there is not a solid grounding in Arithmetic in the earliest years? Yet the training colleges apparently devote 26 per cent. of their efforts to such things as art and craft and a mere 2.8 per cent. to Maths. Is the position in the university departments of education any better? In 1955, out of 136 men mathematicians, 33 had good honours; in physics out of 92 men, 16 had good honours; by way of contrasts out of 177 men in history, good honours were passed by 134. The total number of good men in Maths., and Science combined was less than those in Geography and History

The position is even more serious in the case of women. Women mathematicians are diminishing at the rate of 50 a year. The authors of the A.T.C.D.E. report warn us that at the present output only once in 100 years will a girls grammar school be lucky enough to engage a good physic teacher. And, in the words of the Committee, "Only one grammar school boy in four is likely to enjoy the stimulus of being taught Maths. by men similarly qualified to those who teach him arts subjects." We are trying to build a pyramid without a base. Numbers will avail us nothing if we have not the right numbers in the right quality in the right subjects.

#### What Should the Grammar Schools Do?

The grammar schools have provided a large proportion of technologists and graduates in applied Science and Engineering. But it is also true to say that a good deal more could be done.

At present only 5 per cent, of children of secondary school age enter technical schools so that only a comparatively small number from this source will enter technical colleges. Modern schools cannot be expected to have many pupils capable of studying for a diploma course. The grammar schools then must provide the technologists. The Report on "Early Leaving" published in 1954, suggests that every year some 2,900 boys capable of taking advanced courses in Maths. and Science leave the grammar school at 16. We must stop this wastage. If the country really needs the technologists ways and means can, and must, be found. Local education authorities must also make provisions for technical courses even if it means heavy expenditure on building workshops for practical work. Our modern and grammar schools must offer technical instruction where none now exists, and where conditions warrant it modern-technical and grammartechnical bi-lateral schools might well be developed.

It seems to me that the Norwood tripartite division was a mistake. When the Schools Enquiry Commission reported in 1868 the Commissioners recommended the study of Natural Science for the less gifted, "for," they said, "it must not be lost sight of that boys of very ordinary power for grasping other subjects may evince special ability in Natural Science which ought to be provided for," Nobody would recommend the teaching of Natural Science in those terms to-day, but

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most of us would agree that there are many pupils in grammar schools to-day for whom the traditional pure cience syllabus is not entirely suited, and who might well benefit from some introduction of Applied Science before proceeding to a technical college or entering industry as technicians of one kind or another. Such work by its apparent relationship to the world outside the classroom would, for many of our C and D streamers, have an interest and an immediacy that would give more meaning to their school work that it has at present. The Report of the Royal Commission on Technical Instruction in 1884 declared that the best preparation for technical study is a good modern secondary school of the types of the Manchester Grammar School, the Bedford Modern School and the Allen Glen's Institution at Glasgow." For these distinguished names we could to-day substitute those of all efficient grammar schools. The Bryce Commission also had a conception of education in which the traditional classical and literary education and technical education had an equal validity Indeed, it is possible that we should never have regarded technical education as a junior member of a tripartite division had not the Board of Education issued some unfortunate Regulations in 1904-5 which were based wholly on the traditions of the grammar and public schools. Though the concept of a general education underlying these regulations was one that was described as 'liberal' or 'general,' the effect was to establish a highly vocational education leading to the 'liberal' professions and to the universities, and to exclude all that was connoted by technical or quasi-technical education. So was established the academic curriculum of the new secondary schools springing from the Education Act, 1902. When we look at our grammar schools to-day, especially those taking in 20 per cent. or more of the 11 plus age group every year, can we feel satisfied that the strictly academic course is suited to all our pupils? We cannot. Many of us have felt some uneasiness over the idea that you can divide children into three neatly defined groups at the age of eleven, particularly when it comes to selecting children for technical schools. The broader division between modern and grammar school types is more acceptable, but selection at eleven for a course from a type of school, which determines within fairly narrow limits the pupils, vocational future, is much less defensible. In the White Paper on Technical Education we read,

In the White Paper on Technical Education we read, "Too many of these schools (technical schools) still select at thirteen a second layer of ability and put their children through a two or three-years course, often in the premises of a technical college. This must be remedied. The secondary technical school of to-morrow should select at eleven from children of grammar school calibre and have buildings of its own and a staff which combines academic quality and industrial experience. Schools of this kind can build up strong sixth forms which will provide candidates for universities and for advanced courses at technical colleges."

#### We Should Say No to This.

It is asking children of 11 to pledge themselves to careers in industry or business. To say that such schools are already in existence is no answer. At the moment they only cater for about 5 per cent. of the age group, compared with the 20 per cent. and 75 per cent, in grammar and modern schools. The grammar schools are even now the chief source of technologists who enter industry through the universities or technical colleges. Modern schools provide a large proportion of the technicians. Moreover, the necessary extensions, where possible to existing schools to provide such courses would be much less costly than building new schools In rural areas the bi-lateral solution is generally the only practical one.

It should be possible to delay until quite a late stage in a boy's schooling final decisions as to whether he is to specialise on the Arts' side, in Pure Science and Maths., or in Applied Science. Nor should such specialisation be of a narrow,

vocational kind. If the future lies with the scientist, it is vital that he should have some grounding in the humanities to enable him to apply his scientific knowledge and discoveries with an awareness not only of the material needs of man, but also of man's spiritual needs. Equally the humanist is an incomplete man if he lacks a sympathetic awareness of scientific method and outlook.

We have in the schools always insisted on such a broad general education. As long ago as 1868 the Schools Enquiry Commissioners found their witnesses nearly all condemned "special preparation for employments to the neglect of general cultivation," which "conferred a transitory instead of a permanent benefit, since the boy whose powers of mind had been carefully trained, speedily made up for special deficiencies and very often it taught what soon had to be unlearnt or learnt over again." And a few years later the Bryce Commission reported, "It is instructive that witnesses representative of technical and classical education were agreed in regarding instruction in their special subjects as inadequate by itself, and in holding that secondary education suffered from a too narrow early curriculum, and we may add a too utilitarian spirit."

#### The Same Views Are Echoed To-day by Industry

Last January, the Education and Training Officer of the Dowty Group of Cheltenham, confessed in the T.E.S. that in a training course (apparently for boys of about 16) concerned with a specialised branch of precision engineering to which were recruited boys from public, grammar and technical schools, he found, "that there was no marked difference in ability, after the first few months, which could be attributed to the existence or absence of previous work-In his view it was "far more important shop experience." for a boy entering the engineering industry as an apprentice to have a sound education in English, Maths., and Science than for him to have done metal work or even engineering drawing." While admitting the value of engineering subjects in schools for directing a boy's interests, he added but workshop subjects must never be allowed to detract in any way from more fundamental studies.' Mr. C. S. Windebank, Managing Director of Esso Development Co. addressing a mixed audience of industrialists and head masters, last March, on 'Reward in Industry,' made it clear that for industrial research "technological training was not enough," as " The men needed should be of the widest range of background and character, since they would have to deal as much with men as matter." At Worthing last year, our guest speaker, Mr. Bristowe, Head of the Central Staff Department, I.C.I., told us, "We in industry do not want earlier specialisation . . . In fact, very much the reverse. We want later specialisation . . . Speaking personally, I would like to see very little specialisation at school, but perhaps a longer period in the university, for those taking Science at any rate." He went on to refer to the scheme of scholarships to enable boys who have entered the university as Arts students to change over to Science " with a view to getting some scientists, ultimately, who have been broadly based in subjects other than Science." These industrialists say in effect that the teaching of Applied Science whether at technical level for pupils of 15 or 16 or at technological level for sixth form pupils, is comparatively unimportant. What they need is a good general education.

It should be added that industrialists who recruit a number of Art graduates for management also insist that Arts graduates should have some knowledge of Science and the Scientific outlook. It may be that many of the troubles we suffer from derive from a lack of scientific outlook in high places. And yet, despite the acknowledged desirability of a broad education, despite the condemnation of industrialists and teachers alike of narrow specialisation, the universities do very little to promote in the schools what all agree should be encouraged.

Unfortunately, teachers themselves are not agreed on

how to promote that breadth of outlook which they advocate. Some would have only a pass in two subjects at A level for university entrance; others fear that the extra time available in the time table would merely serve to increase the specialisation in the two subjects. Some advocate more foreign languages for scientists; some more civics for everyone. It is for the universities to take a lead in this. They must give real weight to General Papers in Scholarship examinations and widen the cultural scope of their courses. At the same time we must not exaggerate the lack of cultural interests in our scientists at school. The best certainly have questing minds and broad interests which are stimulated and enlarged in the social give and take at their universities. If we believe that the future of our country depends upon the production of scientists, technologists and technicians, we in grammar schools must play our part.

#### No Room for Complacency

While we can recognise with some satisfaction that the grammar schools, especially in industrial areas, are already doing much to provide industry with technicians and technologists as the survey of the North-Eastern areas by the I.A.H.M. has shown, at the same time there is no room for complacency. Much more can be done to meet the country's needs, particularly in encouraging pupils in less industrialised areas to look to industry for a career. Supported by the views of the industrial leaders we need not establish separate technical streams in the grammar schools, but we should devise courses which, while providing a broad general education, will have some bias towards Applied Science.

The course of the boy who leaves school at about 16 (the future technician) might well be no different from the normal academic course up to a year or so before the G.C.E., at which stage some workshop practice, some elementary engineering, some engineering drawing might be available



as an introduction to industry and future courses at a technical college leading to a National or Higher Certificate. This introduction to Applied Science would stimulate the pupil and direct him to the possibilities of a career as a technician in industry or engineering.

At the other extreme there is the high flyer, the potential university scholarship winner. There seems to be no strong reason why his course should be greatly different from what it is at present, though if the facilities were there some might prefer a course with the emphasis on Applied Science rather than on Pure Science, and considering the present high proportion of pure scientists at our universities, this might be a good thing. These pupils would study Science or Engineering at the university or at one of the higher technological colleges and do a two-year practical course after that.

In between we need a course which would be more fitted for those who wish to stay for a year or two in the sixth form and proceed after passes at A level in Maths., or Science, to embark upon a sandwich course of five years, dividing their time between technical college and the works. Their ultimate ambition would be to gain a National Diploma and to take a technological career.

Provisions for practical work in Applied Science must, therefore, be provided and it is up to the local education authorities to make such provision where necessary. The development of suitable courses in the grammar school the building up of bi-lateral grammar-technical schools would undoubtedly be much more beneficial to the pupils than segregation in separate schools. Their education would not only be on a broader basis in the classroom, but also they would derive the benefits of all the informal, unconscious education which results, especially at the sixth form level, from the contact of boys doing Arts and Science courses alongside each other.

I have referred to the Report on Early Leaving and the estimate that 2,900 boys, who would have done well in the sixth form in Science or Mathematics, are lost to the grammar schools every year. Suitable propaganda within the schools and at Parent-Teacher Association meetings, may induce some to remain, but if the country is really in earnest in seeking an increase in technicians and technologists much more than this is needed. An industrial fund is now helping independent schools to provide laboratories and equipment to the tune of (3m.; many of our State schools are in equal need, and in addition to the normal laboratories for chemistry physics, biology, we must have engineering and metalwork workshops. If the boys and their parents see that the facilities are there, use will be made of them. We must offer a greater variety of Science and Mathematics courses and provide the means for pursuing them. If we want results, we must show that we are in earnest.

## We Return to Where We Began

Where are the teachers of the right kind coming from? To that I have no facile answer. From the available inadequate supply of scientists, technologists and mathematicians, the needs of industry, the civil service, the universities, the technical colleges, the training colleges, and the schools have to be met. An increased supply of teachers is fundamental to the new scientific revolution-and not just any teachers, only teachers of quality will do. There is the crux. It has been suggested that increased grants to enable more boys to follow sixth form courses leading to the university would result in a few more eventually returning to the schools as teachers of Science and Mathematics. It has been suggested that head masters and others, highly skilled and persuasive commercial travellers in education, should visit the universities and display the attractions of the teaching professions before undergraduates studying Science and Mathematics. But, when all is said and done the quality and the quantity of the recruits to the profession

will depend on the attractiveness of the profession—and on nothing else.

There is no doubt the salaries paid in comparison with those in industry and commerce are still a deterent to the undergraduate considering his future career. A generous interpretation of the Burnham Report would help here.

But teacher shortage, even among Mathematicians and Scientists, is not entirely a matter of salary. The conditions under which a teacher works and the degree of esteem in which the profession is held is of great importance. Far too many schools are still inadequately, sometimes grossly so, provided with laboratory accommodation and even more are without proper laboratory assistance; far too many staff rooms are overcrowded places lacking even a modicum of comfort. I say nothing of overcrowded classrooms— though it is fatally easy to attribute this to the famous 'bulge' and do little about it. Salary and working conditions together reflect status. It is also reflected in the outsider's view of the profession, the public attitude towards There is still insufficient general interest in education, still little awareness that the basis of the country's prosperity and leadership is conditioned by the kind of education service the country is willing to support. This is a fundamental truism. The country needs teachers; it needs mathematicians, scientists, technicians, and technologists. Here is a challenge to the Ministry, the authorities, and the schools.

## No Written Tests for Selection

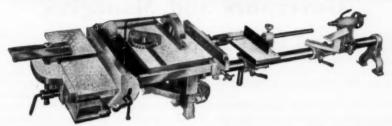
The Surrey Education Committee's Examination Board have been reviewing the arrangements in force in the County in connection with the selection of children aged thirteen years for specialised courses in secondary schools. Certain procedure was introduced in 1955 and, following their recommendations based on the experience gained in the last two years, it is proposed to introduce revised arrangements for the selection of children for specialised courses as follow:

For children in maintained schools in the County there will, in future, be no written tests set as part of the selection procedure. Selection will be made on the basis of school reports, the results of standardised tests taken at school, and on the recommendation of an Interview Panel who will interview the candidates at their own school where each child's school work will be seen and discussed with the head and, when necessary, with the teachers concerned. The Inverview Panel will consist of a representative of the Chief Education Officer (normally a member of the Inspectorate) and two heads of secondary schools in areas other than that in which the candidate's school is situated.

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## The Important Part Played by School Governors and Managers

Mr. Dennis Vosper, Parliamentary Secretary to the Ministry of Education, praised the important work of school governors and managers when he spoke at the opening of the West Hill Secondary Modern School, Bath.

At school openings and other educational functions praise for local education authorities and teachers is both customary and deserved. There was, however, said Mr. Vosper, a group of people equally well deserving whose praise often goes unsung. He referred to the governors and managers of schools.

In all the scores of articles that he had read in the educational press and elsewhere and in the speeches he had heard during the last few years, there was seldom mention of these individuals who play a very important part in the public system of education.

He found this disappointing because the 1944 Act made it mandatory for the first time for county as well as voluntary schools to have governing and managing bodies. As a result, the number of governors and managers in the country must number many thousands and in the presence of an authority which was reputed to take great care in this respect, it seemed appropriate to make a few remarks about them.

Like members of local authorities, governors and managers give their service voluntarily but, said the Parliamentary Secretary, they usually suffer from the further disadvantages that they do not receive travelling expenses nor does it seem certain that they will get petrol coupons. They represent the voluntary element in the public system of education and he would like to see their status firmly established. There was, he felt, a danger that governing bodies might be forgotten because we tended to pay so much attention to the forces of local government on one hand and a powerful teaching profession on the other.

While the existence of governors and managers is laid down by Statute, much freedom is left to local authorities, the most enlightened of which are obviously determined to implement the spirit of the Act, whilst others may be tempted to regard it as a mere formality.

For instance, whilst the appointments must be made by the local authorities, there is no need to make them all from amongst members of the Authority. If education is to draw upon all the talents and is to be broadly based, it seems wholly right that a considerable number of appointments should be made from the general public.

Twelve years ago it was thought that there might be some advantage in grouping schools on a geographical and regional basis. Whilst on occasions this may still be the case, the Ministry's experience of the last ten years is that wherever possible a separate governing body for each school is highly desirable.

In this connection, said Mr. Vosper, it may be as well to remember the advice tendered in 1944 that the interests of the teaching staff of the school or schools, as well as of parents and old scholars should be reflected in the composition of the governing body. Whilst this was not a thing to be covered by legislation, he was sure

that it was desirable that wherever possible these interests should be represented.

Mr. Vosper added: "I sometimes wonder if newly appointed governors and managers are given sufficient indication of their duties. Perhaps the Ministry should issue guidance on this point but some local authorities have overcome it by issuing admirable memoranda. In any case, each governor or manager should receive a copy of the Articles of Government and I am glad to see that Bath have in their wisdom followed the model supplied by the Ministry in which much advice will be found. Is it fully realised for example that governors shall from time to time inspect the conditions and state of repair of the school premises? Is it understood that whilst the local authority shall determine the general educational character of the school and its place in the educational system, the Governors shall have a general direction of the conduct and curriculum of the school? And perhaps most important of all, how often is advantage taken of the arrangements made to enable the teaching staff to submit their views and proposals to the governors through the head master?

"The enthusiastic governor, given the co-operation of the authority and the head master can make the task much more than the business routine which it sometimes becomes. The enthusiastic head master of a new school in particular will welcome the assistance and advice of his governors in an endeavour to establish as rapidly as possible a growing reputation amongst the local com-

He had devoted more time than usual to this topic, said Mr. Vosper, because it was about time someone spoke up for these bodies and he hoped that where necessary, local authorities, governors and managers everywhere would ensure that their work is as real and as important as Mr. Butler intended more than twelve years ago. The essence of all this was that a voluntary service must be maintained in education and that each school must have an individual life of its own.

## Leadership of Teachers' Panel

Mr. J. V. A. Long, had been elected Leader of the Teachers' Panel of the Burnham Technical Committee, the body which negotiates salaries for the staffs of technical colleges and other establishments for further education and Dr. G. E. Watts, Principal of Brighton Technical College and former President of the Association of Principals of Technical Institutions, has been elected honorary secretary of the Panel.

A former President of the Leicester Teachers' Association of the Union, and President of the Association of Teachers in Technical Institutions, Mr. Long is Head of the School of Boot and Shoe Manufacture at the College of Technology and Art, Leicester. He is one of the South Midland representatives on the N.U.T. Executive and is Vice-Chairman of the Union's Salaries and Superannuation Committee.



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## **Teacher Distribution**

## Sir David Eccles' Scheme.

Sir David Eccles, Minister of Education, is calling on all local education authorities in England and Wales to co-operate in a scheme for the better distribution of teachers. Details of the scheme were announced last month in a circular to local education authorities. It has been prepared as a result of the Minister's Conference in October with representatives of local authorities' and teachers' associations, at which there was general agreement that he should give as precise guidance as possible on staffing in present circumstances. The Minister only intends these exceptional measures to remain in force as long as serious mal-distribution exists.

The present rate of recruitment to teaching is increasing the national teaching force by some 7,000 annually. This is more than enough to match the needs of the post-war "bulge" of children and should provide a margin for reducing the size of classes even in the next few years. The Minister, therefore, does not contemplate any new training colleges, as their first students would come into the schools only when the numbers of children were beginning to fall. He is, however, anxious to stretch existing capacity to the full and, at his request, colleges have taken in about 500 more students this year. The colleges have agreed to make another special effort to achieve a further increase of the same order next year.

The Minister's scheme aims at the redistribution by the Autumn of 1957 of some 3,500 teaching posts from the well-placed to the deficiency areas. It is estimated that this would correct in a single year over half the present mal-distribution. No direction of teachers is involved. Redistribution is to be achieved in two ways.

First, authorities are asked to intensify their efforts to enlist and make the maximum possible use of the services of such 'immobile' teachers as married women; to persuade teachers over pensionable age to remain in service; and to utilise part-time teachers to the full. Recent statistical returns show a wide variation between the degrees of success achieved by authorities in these directions.

Second, authorities with comparatively favourable staffing standards are asked, when settling their recruiting policy, at least to refrain from further improvement and in some cases to accept a worsening of these standards as their contribution to a more equitable distribution of teachers.

Each authority is receiving a guide to its own share of the national force as at January, 1958. This has been calculated on the proportion of pupils per full-time teacher in each area. Most of the authorities with relatively favourable staffing ratios are being asked to make a small contribution only towards improving the position of the hard-pressed authorities, some of which will gain significantly if the scheme is effective. For instance, Bristol are being asked to worsen their pupil-teacher ratio between January, 1957, and January, 1958, from 26.0 to 26.6, Portsmouth from 25.3 to 25.7, Yorkshire (East Riding) from 24.1 to 24.5 and West Sussex from 24.4 to 25.1. At the other end of the scale, the scheme aims at improving Birmingham's ratio from

Sir David Eccles, Minister of Education, is calling on 31.1 to 27.6, Hull's from 32.1 to 28.0, Essex's from local education authorities in England and Wales to 28.8 to 26.8, and Staffordshire's from 28.7 to 26.8.

Authorities were asked to confirm by December 31st that in settling the number of teachers they are to recruit this Spring or Summer for the school year 1957-58, they accept the obligation to be guided by the policies and objectives detailed in the circular.

The Minister was impressed by the strong sense of partnership and goodwill that was evident at the October Conference and subsequent consultations with local authorities' and teachers' associations have reinforced his confidence that a survey he proposes to make next Autumn will show that all authorities have been making their full contribution, each in their appropriate way, to this difficult problem. If this expectation were to be disappointed, or if he had evidence at any time than an authority was acting or proposing to act in a way contrary to the interests of authorities as a whole, the Minister would feel bound, with great regret, to apply the appropriate sanctions.

#### N.U.T. COMMENTS ON PROPOSALS.

The attitude of the National Union of Teachers to the Minister's proposals was expressed in two statements issued after publication of the circular.

In their first statement the N.U.T. said that while the Union is opposed in principle to any artificial restriction on the freedom of teachers or local education authorities it, nevertheless, recognised that the present mal-distribution of teachers has produced a critical situation in some areas which can be relieved only by exceptional measures. In these circumstances, although regretting the necessity for any redistribution scheme, the Union expressed its general support for the main proposals put forward by the Minister. The Union noted that the Minister's circular places the primary responsibility for the successful operation of the scheme upon local education authorities and calls for their co-operation to secure speedy relief for the hard-pressed areas.

In regard to the Minister's request to authorities to consider what contribution they can make by way of encouraging suitably qualified teachers to transfer from primary to second schools and replacing them where necessary by immobile teachers, the Union wished to emphasise that this suggestion will depend on the voluntary co-operation of teachers for its success. If teachers are transferred from one school to another against their will, said the Union, this could easily lead to a loss of teachers from the profession.

The Union also expressed the hope that the Government will look at existing pension arrangements to see what can be done to facilitate the return to teaching of retired teachers who are able and willing to help in the schools. Existing arrangements, they say, tend to discourage retired teachers from returning to teaching.

It recalled that, at the Minister's Conference, the Union representatives suggested a number of measures which, if adopted by local education authorities not implementing them at present, could help authorities



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to make service in their area more attractive to teachers and possibly to bring back into the profession qualified teachers who have left it. It hopes that local education authorities, particularly those in hard-pressed areas, will find it possible to adopt the Union's suggestions.

The Union further proposed to the Minister of Education, as an emergency measure, that trained teachers at present serving in H.M. Forces should be released and that those accepted for training and those due to enter National Service after completing their professional

training should be given deferment.

The further comments of the Union Executive, after detailed consideration of the proposals, were expressed in a letter to the Minister, in which they welcomed the statement in paragraph 6 of the circular that "the transfer of teachers can be arranged only after careful consideration of its effect on the schools and on the teachers concerned."

The Executive went on to emphasise its belief that the efficiency of the whole education system must depend upon the efficiency of the primary schools and that no transfer should take place which results in the lowering

of standards in the primary schools.

They also considered the implications of the paragraph in Circular 318 which states: "It may well be that for a variety of reasons immobile teachers may offer themselves more readily for vacancies in primary than in secondary schools. All authorities, and in particular, those who are finding little difficulty in attracting all the mobile teachers they need, should therefore, consider what contribution they can make by encouraging suitably qualified teachers to transfer from primary to secondary schools and replacing them where necessary by immobile teachers as a means of decreasing their demand on the part of mobile secondary teachers."

The Executive said they were opposed to any suggestion which might be read into this paragraph that immobility in itself should be regarded as a qualification

for teaching in primary schools.

### To Succeed Sir Arthur Binns

Mr. Percy Lord, Deputy Chief Education Officer for Lancashire, has been appointed to succeed Sir Arthur Binns, who has been Lancashire's Chief Education Officer since 1945, and who is shortly to retire.

Mr. Lord went to Lancashire as Assistant Education Officer (Further Education) in 1947 and in 1949 when Mr. Norman Fisher (now Education Officer for the National Coal Board) left to take up the post of Director of Education for the City of Manchester, Mr. Lord succeeded

him as Deputy to Sir Arthur Binns.

Mr. Lord was educated at Oldham High School and the University of Manchester. He is a Bachelor of Science with First Class Honours (Chemistry) and a Master of Education. He was a teacher from 1927 to 1942 in Lancashire, Oldham and Sheffield. For two years he was an Organiser in the Education Service at Bradford and later became Assistant Education Officer at Nottingham.

Dr. Katherine S. P. Hill, M.B., B.Ch., B.A.O.(B.A.), has been appointed by Sheffield City Council as School Medical Officer in succession to Dr. M. M. Elliott (resigned).

## **Expansion of Technical Education**

Addressing a meeting of the Technical and Further Education Section of the N.U.T. on "The Expansion of Technical Education," Mr. H. S. Barlow, M.Sc., of the South-East Essex Technical College, said it was a serious matter for concern that the supply of men and women of good scientific and technical education and training falls far short of the overall demand. Also it appeared that future demands could only be satisfied if the plans announced by the Government were extended and speeded up. Such could only be the conclusions to be drawn from the recent Report on Scientific Manpower in Great Britain.

Immediate shortages, said Mr. Barlow, cannot be solved by alterations in educational planning. Some contributions could be made to partially remedying shortages and deficiencies of maldistribution by some revision of military service arrangements. Examination should also be made of the distribution of qualified scientists in industry to see that they are not employed in work which is well below their capabilities. On the other hand, the employment of such men should be extended to see that all our industry takes full advantage, as rapidly as possible, of modern research and invention. Particularly was this true of the small firms which employ over 50 per cent. of the industrial labour force.

Whilst welcoming the White Paper on Technical Education, the setting up of the National Council for Technological Awards and the Colleges of Advanced Technology, indicating that the Government has at long last decided to include the technical colleges in its plans for the development of Higher Technological Education, it was felt that the provisions forecast are insufficient for future needs. Technical colleges should be incorporated to a greater extent in the plans, and there is an obvious need for a more benevolent outlook on students' grants, particularly for full-time and sandwich course students to be recruited from industry. The arrangements for technical education must remain flexible. This was not assisted by the issue of Circular 305, which, it was suggested might have considerable adverse effects on the recruitment of students from all but the largest firms and on the arrangement and supervision of sandwich courses.

### Ineducable Children

Replying in the House of Commons to Mr. Sorensen, who asked approximately how many children have been officially recorded as ineducable and excluded from school, how many parents annually appeal against this decision, how many of those appeals are granted, and how many mentally retarded or subnormal children are now receiving appropriate education in schools, Sir David Eccles said about 3,000 children annually are reported by L.E.As. as ineducable. In the year ending September, 1954, the last period for which complete figures are available, there were 373 appeals, of which twenty-two were successful. In 107 other cases appeals were withdrawn by parents or the authorities withdrew or postponed their proposals to report. Over 24,000 educationally subnormal children are attending special schools, and many others receive special educational treatment in ordinary schools.

## Acute Need for Specialist **Teachers**

Special Courses Announced

Sir David Eccles, Minister of Education, opened 1957 by appealing to local education authorities to release teachers for specialist training. The need for these teachers is now acute, especially in the secondary schools, where the demand is growing rapidly as the large

age-groups reach this stage.

Details of courses available in 1957-58 are now published and in a covering memorandum the Minister says: "The next few years will be particularly critical for the secondary schools and it is of the utmost importance that as many teachers as possible should attend the courses." The most urgent need is for an increase in the number of teachers of such subjects as science, mathematics, housecraft, needlework, handicraft (woodwork and metalwork) and physical education. Courses in these subjects have been expanded and more will be arranged if required.

Supplementary courses, lasting one academic year, are available to serving teachers, and to training college students on completion of initial training for the profession; special courses, also of one year, are offered to experienced teachers for advanced work in particular fields of education. Serving teachers are also offered shorter courses of a term's length in various subjects.

Teachers accepted for courses will be seconded on full salary. Training college students who take any of the courses on completion of training will be eligible for a

grant for the further year of training.

Supplementary or special courses satisfactorily completed will be regarded as periods of approved training, entitling teachers to an addition of increment to salary.

Courses for teachers in the subjects for which there is an urgent need are provided in training colleges, university departments of education, and other institutions in many parts of the country. The Minister also urges local education authorities to see that provision is made by means of local courses for teachers who cannot leave home to attend supplementary courses.

Additional measures for combating the shortage of specialist teachers of these subjects, and of deploying them to the best advantage, are suggested in a circular letter from the Minister to local education authorities. This follows the scheme for the more efficient distribution of all teachers announced by Sir David early in December. He is now concerned that an effort should be made at once to produce more teachers in the short term, and calls on all concerned -authorities, teachers and others-

Training colleges, and particularly the women's physical education and housecraft colleges, have been asked to increase their intake for the next year or two. Other colleges have also been asked to admit more students ready to make these subjects a main part of their study. There should, therefore, be places for more good students wanting to take these subjects. The letter adds that students are sometimes reluctant to study them at college because they are conscious of not having taken them to a sufficiently high standard at school, and the Minister hopes that headmasters and headmistresses will do their best to stimulate interest in them and encourage intending teachers to study them in college.

## Shortage of Scientists and Engineers Number deferred from National Service to be Increased

Mr. Iain Macleod, Minister of Labour and National Service, announced in the House of Commons last month that the Government had decided to increase the number of scientists and engineers who may be granted indefinite

deferment of National Service.

Those affected are university graduates who complete courses of study or training in 1957 and who have firstclass honours degrees in one of the main branches of science or engineering. They will be granted indefinite deferment of National Service only if they take up employment in this country which requires a science or engineering qualification of degree standard. number who will be eligible under this new scheme is estimated at between 300 and 400 during the year.

Mr. Macleod explained that the Federation of British Industries had made representations to him about widening the opportunities of deferment for science and engineering graduates so that more could take up employment in industry and thus alleviate, to some extent, the immediate shortages. He had asked the Technical Personnel Committee to consider the matter and it was on their advice that the decision had been made. The position would be reviewed at the end of next year.

This measure would, he hoped, be of some help, not

only to industry, but also the universities.

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No. 3378

IANUARY, 1957

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## Month by Month

The Direct Grant List.

ONE of the most notable decisions of 1956 in the sphere of educational administration. was Sir David Eccles' announcement last month that the Direct Grant list of grammar schools will be re-opened. The Minister had decided, to quote his own words, " that

the ban should now be lifted." Why there ever was a "ban" at all has never been clearly explained. A case can be made for the abolition of direct grant status and a case can be made for its maintenance as a permanent and perfectly respectable feature of our English educational pattern. There is, however, nothing worth while to be said for maintaining a reduced and permanently closed list. Direct Grant schools cannot be justified as quaint survivals of an unenlightened past, nor yet as tolerated houses of education or at best as anomalies. The New Year marks the thirtieth anniversary of the formation of the Direct Grant List. It is, therefore, not inappropriate that the Minister should now decide to review the list and to consider applications for inclusion in that list. For eleven years successive Ministers have refused to take such reasonable action.

It was stated in the White Paper on Educational Reconstruction, 1943: "It is not possible here and now to reach a conclusion about the future of these [Direct Grant] schools as a class." A decision on the future of that group of schools was postponed until the Fleming Committee had submitted its report. In 1944 the Education Act in Section 100 (b), empowered, or rather required the Minister to provide by regulation-

"for the payment by him to persons other than local education authorities of grants in respect of expenditure incurred or about to be incurred for the purposes of educational services provided by them .

There is no suggestion here that the list of schools aided under this sub-section should be closed, still less that schools should cease to be so aided. On 16th March, 1945, the Minister announced that he would now consider the future of Direct Grant Schools, "in the light of the Fleming Report," which it was then hoped might in some way be implemented. Conditions for Direct Grant were revised and the list was reviewed accordingly. Circular 32 stated-

"It is anticipated [sis] that the Governors of a number of schools . . . will decide to apply for their schools to be maintained as voluntary schools under Section 13 of the Education Act. No schools which have not previously been grant aided can be considered for direct grant."

It was the last sentence which constituted the "Ban" to which Sir David Eccles referred and which is now to be removed. It prevented any independent grammar school from joining the grammar schools on the Direct Grant List. They had either to raise their fees to prohibitive figures or close down. The Regulations made in 1945 had regard to the four points of the Fleming Report: (1) The financial soundness of the school foundation: (2) the non-local or other special character

of the school; (3) the local education authority's opinion on the status of the school, and (4) the necessity for ensuring that there was no means bar to any child's admission to such a school. It must be recognised that the Minister is acting realistically in acknowledging, in effect, that the Fleming Report was abortive.

It was interesting to see the press reaction Press to this new development. The Times Reaction. Educational Supplement admired Sir David Eccles' courage in opening the list once more, remembering the bitter squabbles which attended Miss Ellen Wilkinson's review of that list in 1945. The new decision was welcomed as a good one. The advantages of Direct Grant status are so obvious that they ought not to be reserved for the comparatively few schools which now possess them. The status may have a great future. It may come "to cover many of the better independent schools." It is recognised that admission to the list is "an honour which should be granted with the utmost care only to those schools which clearly deserve it.' The Times, in a leading article significantly headed "For Outstanding Schools,' gave a warm welcome to the The Direct Grant School was Minister's proposal. described rather surprisingly as "like some other British institutions . . . a curious hybrid." Is it a British institution? Up to half the places in Direct Grant Schools are free to parents. The other half are open to fee payers. "after stern examination" and subject to remission of fees for parents of low means. Education, on the other hand, is uncompromisingly hostile to the new development, which is described as "an astute political move to help the middle classes." The move is unnecessary because any independent school which is likely to go on the list "could go aided if it needed to." This statement is, indeed, an amazing one, which will not bear close examination. The writer alleges that not all residuary place holders are admitted on merit. He seems to imply too that all holders of such places pay fees, which is certainly not true. The former statement can only mean that Governors and Heads of Direct Grant Schools are failing to comply with the conditions of Direct Grant status and that the Ministry and H.M. Inspectors are parties to such an illegal and improper abuse. This is a very serious charge to make even by implication and is not supported by any evidence. The Minister's Regulations require that "no pupils shall be precluded from entering the school by reason of the inability of his parent to pay fees. The Governors shall make "adequate arrangements for ensuring that no pupil who is incapable of profiting by the education in the school shall be admitted thereto or retained therein." These are actual conditions of grant and H.M. Inspectors are able to ascertain that they are, in fact, fully observed. The addition of possibly as few as twenty schools to the Direct Grant List is criticised, too, on financial grounds. It is not, however, explained how the ratepayer or the taxpayer would benefit if all Direct-Grant schools became "aided." The building programmes of these schools have been and are being financed without any assistance whatever from public funds. Aided status would obviously be a boon to the foundations of these endowed schools, but would equally obviously add new burdens to the local education

authorities concerned and to the Ministry of Education.

Specialist Teachers. The Minister of Education has shown his grave concern at the acute shortage of specialist teachers of physical education, handicraft and housecraft. Local Education Authorities were asked to inform

the Minister by the end of last month of the exact position in their areas. Such information when received and collated will show the extent to which the supply of these teachers is below the demand and how far the shortage is aggravated in some areas by maldistribution. The Minister is rightly concerned that an effort should be made at once to produce more teachers of these subjects and to deploy them to the best advantage. All training colleges have been asked to increase . sir intake of students and particularly the three-year physical education and domestic science colleges. There is much that colleges can do to improve and increase the facilities which they offer for training in what used to be conveniently called "special subjects." It may be confidently expected that the training colleges will do all they can to help. The Minister appeals also to head masters and head mistresses to stimulate interest in these subjects and to encourage intending teachers to study them in college. Here much more can be done than is even attempted at present. It would be interesting to know how many head masters of grammar schools have during, say, the past three years, suggested to any of their boys that they might think of the teaching of metal work in a secondary modern school as an appropriate career! The Minister is obviously expecting much from supplementary courses of one year and from shorter

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courses of specialist training for serving teachers. He does, however, urge that local courses should be provided by area training organisations and local education authorities, not only in order to help those who might be unable to attend supplementary courses, but also to provide a quicker solution to the difficulties where they are most acute. It is to be hoped that this appeal will meet with a wholehearted and effective response. It is sheer tragedy that boys and girls should be passing through the whole of the secondary stage of their education without proper expert teaching, sometimes even with no teaching at all, in these most important subjects and activities of school life. To local education authorities the situation may seem to be a temporary one. To the children concerned the injury and deprivation is permanent.

Television Schools.

IT looks as if Independent Television will beat the British Broadcasting Corporation in its race for the schools. The Associated Rediffusion Company, by arrangement with

the I.T.A., offers television programmes for schools after Easter. The Company has, however, been able to make such remarkable haste largely, it is said, because it has dispensed with the kind of consultative machinery which the B.B.C. has used so effectively in building up its sound broadcasts to schools and which

has since been busy with the problems of school television. The Associated Rediffusion Company has, in fact, decided to establish a Consultative Council, but the surprising thing is that it has proceeded so far without one. Meanwhile, the School Broadcasting Council of the B.B.C. has announced that experimental school television broadcasts will begin in the Autumn of this year. Responsibility for this service will rest with a reconstituted School Television Sub-Committee under the chairmanship of Mr. J. L. Longland. The eighteen members are all engaged in teaching or educational administration, and are representative too of the regions of Great Britain and Northern Ireland. The experimental nature of the new service is emphasised. In the first year school programmes will be broadcast on three afternoons a week for 20 or 25 minutes. There will be a general science programme for children aged 12 to 14 and Current Affairs for children of 13 to 15. The latter programme will draw its material from current news, the general background of contemporary life, life in other lands, and the world at work. In the second term a careers series will be included in this programme. Local Education Authorities will carefully select the secondary schools which will take part in the experi-There is no reason why they should all be of one type only. The General Science series may be of value to the less academic streams in grammar schools.

## 1,342,000 School Leavers Placed in Employment

## Work of the Youth Employment Service

acceptance of a unified Youth Employment Service over the country as a whole, and the value of the service and the important part it has to play in our national life has been increasingly recognised by employers, teachers, young persons and their parents," says the National Youth Employment Council, in their Report for 1953-56.\*

As an indication of the work of the Service, in the three years under review, nearly 1,480,000 school leavers were given individual advice and 1,342,000 were placed in employment, of whom nearly 711,000 were found their first jobs.

The Council, with its Advisory Committees for Scotland and Wales, advises the Minister of Labour and National Service on the administration of the Youth Employment Service, which is carried out by education authorities in about two-thirds of the country and by the Ministry of Labour in the other third.

The persistent shortage of workers since the end of the war had meant that the employment situation for young persons had been particularly favourable during these years. As a result of the shortage, there had been competition among employers for young workers, juvenile wage rates had generally risen more than adult rates, and there had been an increased emphasis on training and welfare schemes.

One feature which had caused the Council concern was the increased difficulty of obtaining apprenticeships

"These three years have witnessed the growth and compared the provided and other opportunities for systematic training in compared to the compared the provided training in the compared to the provided training in the compared to the compared to the compared training in the compared to after the war, employers were anxious to take all the apprentices they could get, but in recent years they have been more selective in engaging young persons as apprentices or learners" states the Report.

The Council have considered the implications of the increase in the number of school leavers during the next seven or eight years. The number of young persons reaching the age of fifteen reached its lowest during 1956 (613,000) and thereafter it will rise until there would be half as many again in 1962 (930,000).

"Assuming that there is little change in the national employment position in the next few years, we are advised that these additional school leavers should be able to find jobs and that there should be no increase in unemployment among young workers," state the Council. 'It may, however, take longer for young persons to be absorbed into employment on leaving school and there may be some lengthening of the average period of unemployment on changing jobs. In addition, it may prove more difficult to find openings for disabled and other handicapped young persons than in recent years when the demand for young workers has persistently exceeded the supply. There may also be less incentive for young persons generally to change their jobs, although we do not consider that the turnover is unduly high at the present time.

<sup>\*</sup> The Work of the Youth Employment Service 1953-56, H.M. Stationery Office, 2s, 6d, net.

Another result might be that it would be more difficult for individual boys and girls to obtain the jobs which were ideally best suited to their capacities and preferences. In particular, the shortage of apprenticeships and other opportunities for training is likely to become more acute unless positive measures are taken to increase openings of this kind. It was thought desirable from the point of view both of the nation and of the individual that those youngsters who were capable of undertaking apprenticeship or similar training should be able to do so. The whole subject was at present receiving the attention of the National Joint Advisory Council. "In the meantime," says the Council, "we would suggest to industry that the next few years will provide it with a unique opportunity to build up its skilled labour force by increasing its intake of apprentices. It is an opportunity that is unlikely to recur.

The Council point out that, during the past three years of consolidation, the Service had been dependent on the qualities and enthusiasm of its staff more than on any other factor. The calibre of the Youth Employment Officers, it adds, is the key to the future development of the Service. A career in this Service is now a recognised branch of Social work and they hope it will continue to attract men and women of high ability with the desire to do a really worth-while job. Education authorities had been asked to examine their future needs in the light of the increase in young people over the next few years and the need to provide adequate training for the additional staff would be a matter of concern to the next Council during its term of office.

Vocational Guidance.

The Report emphasises that the success in the giving of vocational guidance depended on adequate knowledge of the boy or girl on the one hand and comprehensive, systematised knowledge of employment on the other. As the study of occupations must be a permanent and integral part of the Youth Employment Officer's work. the Council recommends that consideration should be given to the preparation of a further memorandum on the classification of occupations based on the result of job

Particular consideration had been given to the use of visual aids in vocational guidance and a memorandum of advice on the subject had been issued to the Service.

Progress had been made in the development of the careers advisory service for older school leavers. Secondary, grammar and technical schools, including independent schools, were making increasing use of the service available. In some schools the Youth Employment Service provided the full complement of talks, interviews and assistance in finding suitable openings. Other schools referred selected boys and girls with careers problems to the Youth Employment Officer for advice, whilst others made use of the Youth Employment Office for obtaining information about particular careers. The quality of the service available was, however, still very uneven. In many areas a service was being developed for the first time and progress was expected to be gradual. The Council hoped that more attention would be paid to the improvement of the service for the older school

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## Young Persons in Employment.

The proportions of young persons entering different types of employment varied little in the three years 1953-55 and were very similar to those of the preceding three years. About a third of the boys under sixteen entered apprenticeship; about one in twenty entered clerical employment and about three-fifths went into "other employment." A somewhat higher proportion of older school leavers entered apprenticeships, and a considerably higher proportion entered clerical employment and the professional occupations. On the other hand, the proportion of girls entering apprenticeships or professional occupations was very small, whilst about a quarter of the girls under sixteen and nearly two-thirds of those aged sixteen and seventeen entered clerical employment.

By the end of 1956, over 100 apprenticeship or training schemes had been introduced in various industries and several other schemes were under discussion.

Particular consideration had been given to the question of the age of entry into apprenticeship. In those industries which considered it impracticable to lower the minimum age of entry to fifteen years, the Council urge that better use be made of the time before entry into apprenticeship. The provision of pre-apprenticeship courses to fill the gap, a development which had been particularly marked in Scotland, is recommended.

## Special Aptitude Scheme

The Council are of the opinion that the Special Aptitude Scheme, which enables boys and girls to take a course of training for a skilled occupation away from home, is of the greatest value in assisting talented young people to develop their capabilities. An example is given of one technical college area in which twenty-seven boys, helped by the Scheme, had obtained thirty-five awards ranging from the Higher National Certificate to the Intermediate Examination of the City and Guilds of London Institute. In the eight-and-a-half years since the start of the interim scheme over 11,000 young persons had been granted financial assistance.

#### Scotland and Wales.

Chapters on the development of the Service in Scotland and Wales refer to the problems which had been specially dealt with by the two Advisory Committees. In Scotland the subjects discussed included the arrangements for co-operation with Approved Schools and the careers service for older school leavers. In Wales the subjects dealt with included employment of grammar school boys in industry; vocational guidance and the placing of handicapped young persons; unemployment statistics for boys and girls and employment opportunities other than in agriculture in rural areas. Both Advisory Committees considered the suitability of the "Choice of Careers" booklets.

### New Developments.

In addition to the problems arising from the increase in school leavers, the new developments and fresh problems discussed in the Report are co-operation with Approved Schools, handicapped young persons, young persons outside the United Kingdom and National Service.

## Handicapped Young Persons.

A survey of the adequacy of facilities for the vocational training of handicapped young persons showed that the facilities seemed adequate in relation to demand.

At the same time the survey suggested that (1) there was a need for more provision of special schools, particularly for the educationally sub-normal to enable them to continue their general education for a further year; and (2) for special general education for these boys and girls beyond the age of sixteen to fit them for vocational training. These conclusions were given in evidence to the Piercy Committee on the Rehabilitation of Disabled Persons, whose attention had also been drawn to the lack of adequate training facilities for ineducable children and the special needs of maladjusted children. The need for hostels or suitable foster parents for those who work away from home was also stressed.

## Liberalising Technical Education

The importance of a liberal education was stressed by Mr. Dennis Vosper, Parliamentary Secretary to the Ministry of Education, in an address to the West Midland Regional Advisory Council for Technical, Commercial and Art Education last month.

"I strongly believe," he said, "that the foundations of a liberal education must be laid in the schools, and especially in the grammar schools. We have carried specialisation dangerously far in our secondary education. This is where the universities can help; but it is no good leaving it to them alone. The schools and the universities will have to put their heads together. I will only say that I think that a less specialised secondary school course would produce not merely more scientists and technologists but more liberal scientists and technologists.

"The breadth of culture comes from what we study and how we study it. Teaching on the Arts side has usually afforded more opportunities for contact with mature minds. You will not make technical education liberal just by adding subjects to the course. Try to give students the chance to meet personally and discuss their problems with first-class scientists and technologists. This is where the universities score at present. But I know that the attempt is being made to reduce the amount of lecturing in technical colleges and to introduce the tutorial system to a much greater extent. This is a development full of promise."

The Minister hoped that sandwich courses would afford one of the principal means of raising the output of technologists from 9,500 to 15,000 which was the target set in the White Paper on Technical Education. "In a few years' time," Mr. Vosper said, "our aim should be to secure a figure of something like 5,000 students entering such courses every year.

"Sandwich courses will enable the colleges to pay full attention to the quality and breadth of the education of their students. Many have doubted whether the technical colleges can turn out really broad-minded cultured people, well-grounded in the fundamental sciences. Perhaps in the past, technical courses were narrow simply because the part-time day or evening student had no time to be anything else. The sandwich course does give students the time to probe deeply into their subjects and to range widely round it. The National Council for Technological Awards have recognised this by stipulating that courses for their Diploma must include what are nowadays called 'liberal studies.' Some interesting developments are going on in a number of colleges."

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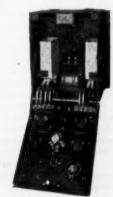
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## As the Administrator Sees It

FROM A SPECIAL CORRESPONDENT

#### UNIVERSITY AWARDS

It is clear that all is not well with the local authorities' schemes for awards to students at universities and other institutes of advanced education. In theory the great majority of local authorities subscribe to the principles laid down by the Ministry of Education, but although lip service is given to the principles there is wide diversity in practice and it is clear that grievances, and in some cases injustices, arise.

The Ministry of Education recommend that two passes at advanced level should qualify for an award. Many people believe that this is too low a standard. The standard was fixed on the assumption that it would prevent undue specialisation and allow students in their last year at school to read widely in subjects other than their examination subjects. It is to be feared that this hopeful belief has not materialised. The requirement of two subjects has narrowed the curriculum so much that many students and teachers concentrate on them to the complete exclusion of all other subjects and interests.

The minimum requirement does not cause very much difficulty when it comes to choice of university. Some universities expect more than the minimum. There are other universities, however and faculties within universities where the minimum requirement is readily accepted. It is only when the student is accepted that the local authorities enter into the picture, because it is at this stage that the student makes application for a grant.

Some authorities give grants to every student who is accepted. The great majority, however, make a selection. No doubt this selection is done conscientiously and the interviewing committees are fully possessed of facts giving account of the student's career and prospects. But the range of courses for which awards can be given is so wide that it is very difficult for an interviewing committee to assess the potentialities of a possible Balliol scholar and an entrant to a ballet school. It is inevitable that there should be decisions which the people concerned find hard to accept. It can happen that a boy with three passes at advanced level is refused a local authority award, while a neighbour with two passes, living a few doors away, is granted an award.

It is a serious matter when a boy or a girl remains at school until age 18 and is accepted by a university only to find that the local authority cannot see their way to make an award. The position is made worse when the student feels that he has been badly treated in comparison with other students of his acquaintance.

In some cases the authority tempers disappointment by assuring the student that if he goes to university as a fee-paying student and does well in his first year, he will be reconsidered for an award. There are other authorities, however, who go to the other extreme and take the line that once a student has entered a university as a feepaying student, he must remain in this category during the whole of his career.

The Ministry of Education are strangely silent on this

matter. It is a silence which cannot be defended. No good purpose is served by the Minister of Education inviting parents to send their sons and daughters to advanced courses in science if there is this uncertainty regarding the possibility of financial assistance. One solution would be for all major awards to be taken away from the local authorities altogether. Another would be to abolish fees in universities. Many people who are refused local authority awards might make the struggle to send their children to universities if the fees were abolished. They might be prepared to accept the burden of maintenance; but the burden of maintenance and fees is too much for many deserving people. The preoccupations of the Ministry of Education with other aspects of the educational system should not prevent them from tackling this difficult and urgent problem.

#### THE DISTRIBUTION OF TEACHERS

The scheme which Sir David Eccles has sent to all local authorities on the distribution of teachers makes interesting reading. It marks a new departure in Ministry of Education circulars. No doubt much of the policy at the Ministry of Education is based on statistical information, but this is the first time that local authorities have been issued with a circular which states the statistical bases on which it is founded and the consequences which flow therefrom.

The circular has been well received by both the local authorities and the teachers' organisations. Both have been closely identified with the Minister in the discussions which have taken place over the distribution of teachers. It might, therefore, be true to say that the representatives of the teachers and of the local authorities would not wish to find fault with the policy with which they have been associated.

The circular makes several assumptions. It assumes that there will be a certain number of children and a certain number of teachers in January, 1958. If these assumptions are correct then there will be a certain number of children for every teacher employed. A pool of teachers has been statistically created by making a 1 per cent, deduction from every authority. When this pool has been re-distributed it will mean that in January, 1958, some authorities will have fewer teachers than they have this year while other authorities, indeed the majority, will have more teachers.

It is a brave venture and Sir David deserves congratulations for his essay in forecasting. One cannot help feeling that it deserves to succeed. It has been so much praised that if it fails he can very well turn round and say that no one was clever enough to spot any flaws in his statistical argument. Indeed, the Statistical Branch at the Ministry can take great comfort from the lack of

It is, however, strange that recent Ministry circulars on the distribution of teachers have made no reference to the building programme. In the great majority of authorities the demand for new teachers is occasioned

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by the building of extra accommodation which, in turn, is caused by the presence of extra children. In a year, when many new schools are opened, the demand for new teachers is greater than in a year when fewer new schools are opened. This is an elementary point in administration. One cannot help asking the question "What will happen if the total accommodation that is available, including hired premises, is less than the number of teachers which an authority is virtually compelled to employ?" If Sir David insists that all authorities should employ their full quota, it will mean that teachers are not being economically employed. There will be more double classes in single rooms, there

will be more floating teachers, there will be more free periods for teachers.

It is not to be expected that the teaching profession will complain about this. Teachers find themselves in an extremely fortunate position. The effect of the circular is to guarantee employment for every teacher who comes through college this year. There must be very few professions in this enviable position.

Yet, although a state of affairs like this would be immediately acceptable to teachers, wisdom would prevail in the end. A bad policy never succeeds in the long run. The success or failure, therefore, of Sir David's essay in statistics might depend not so much on the teachers, but on the availability of accommodation.

## **School Television Broadcasting**

In November, 1955, it was announced that an experimental service of School Television broadcasts would be inaugurated in the Autumn of 1957, and the Secretary of the School Broadcasting Council for the United Kingdom has now notified local education authorities of the latest developments in its plans.

## The Programmes

The School Television Sub-Committee has agreed that, in view of the experimental nature of the service and in order that the programmes may be influenced by what is learnt in the course of the year, it would be undesirable to plan the programmes in detail as far in advance as is done for Sound School Broadcasts and to announce firm titles for the whole year in the annual programme published in June. Special steps will be taken to supply the schools taking part in the experiment with as much advance information as possible, as it becomes available, and notes for the guidance of teachers will be available shortly before the start of each of the groups of programmes. It is unlikely that there will be anything substantial to add to the information about the programmes given below until shortly before the start of the service.

In the first year the proposal is to broadcast a programme to schools on three afternoons of the week. It is likely that each programme will be planned to last for twenty to twenty-five minutes. One of the programmes is to be "General Science," addressed to children of the age range twelve to fourteen, planned to encourage children to develop an interest in the scientific principles behind a wide range of natural phenomena and everyday happenings. Some programmes in this series will deal with the social impact of science. The programmes are likely to be grouped into half-termly units, each of which would be a coherent whole though independent of any other. It is thought that the specialist teacher of science might use any or all of the units as a supplement to his own syllabus, while the non-specialist might wish to use the series as a basis for a balanced scheme of work. It is hoped that there will be a telerecorded repeat of this general science programme each week so that evidence may be collected about its suitability for a wider range of classes.

The other weekly programme will be on "Current Affairs" addressed to children of thirteen to fifteen.

It will draw its material from a variety of fields—current news, the general background of contemporary life, life in other lands and the world of work. In the first term these programmes are likely to consist of a miscellany dealing both with background to the news and news items of current interest. In the following term it is hoped to provide a Careers series having the dual aim on the one hand of interesting young people generally in other people's jobs and in the industrial and commercial life of the community and, on the other, of introducing them to the field of vocational opportunity. Further projects will be planned in the light of experience in the previous terms.

#### The Selection of Schools.

As already stated, the experimental service is intended for secondary schools. In selecting the schools to take part in the experiment authorities will no doubt wish to take into account that the broadcasts will be intended for children of average ability of the ages mentioned in secondary modern schools. Nevertheless, it is hoped that some grammar and other selective schools and some comprehensive schools will also be equipped so that we may have evidence as to the value of the programmes from as wide a variety of schools as possible and in respect of children of varying ability. The Science series, for example, may be of value to the C and D streams in the larger grammar schools who may be following a less academic syllabus than their more able contemporaries. Similarly, some of the Current Affairs programmes may be suitable for children younger than the advertised age range.

#### The Equipment of Schools

Arrangements have been made to give local education authorities advice on receivers. Tests have recently been conducted to compile a list of television receivers suitable for classroom use and a report on the results is being sent to the Associations of Local Authorities. The Associations will be circulating it in due course and authorities are strongly advised not to enter into any commitment for the purchase of television receivers before they receive it.

Meanwhile, those local education authorities who wish to equip some of their schools to receive the experimental service and who are now preparing estimates for the

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financial year 1957-58, may like to know that the tests confirmed the information already given that it will cost approximately £200 to equip a school, that this is a 'safe' estimating figure which should cover installation costs as well as the receiver, and that in many cases it may be possible to make satisfactory provision for substantially less.

## Television for Schools on Channel Nine

A daily half-hour schools programme on television, to be transmitted as a trial series from the end of April until June, has been announced by Associated Rediffusion.

Mr. Boris Ford, lecturer and educational journalist, has been appointed head of school broadcasting for the organisation, and will have a staff of ten. Miss Rosemary Horstmann, of the women's section of Associated Rediffusion, has been appointed to assist him. An educational advisory committee is to be set up to advise on the form and type of programmes.

Mr. Ford explained that the programmes would be intended for children of 14 to 15 years of age. The broadcasts will take place from 1-45 to 2-15 p.m. daily from Monday to Friday. The trial run is designed to end with the June examination period, and if the programmes are then deemed to be successful, they will be planned to cover three terms of twelve weeks each in a year.

"We shall think up the kind of programmes we would like to do," Mr. Ford said in an interview, "and then consult our committee." They would also consult chief education officers, head masters, individual teachers, and, where appropriate, the National Union of Teachers.

The cost of the programmes, said Captain Brownrigg, General Manager of Associated Rediffusion, will be from £1,500 to £2,000 per week, and while the Company reserved the right to advertise in the programmes, he thought it most unlikely that they would do so. They might possibly put an advertisement for school books at the beginning or end of a programme.

## Guide to Spring Listening

The Spring issue of *Listen and Learn*, the free leaflet which offers a guide to the more important talks, discussions and performances of plays and music to be broadcast during the next three months, was published on Friday, January 4th, and copies can be obtained from most public libraries in Great Britain.

Some of the programmes have been designed as progressive series to meet the known needs of various sections of the public. These include a series on the Industrial Revolution in Britain between 1760 and 1851, entitled "Where We Came In," to be followed by another on "The Push Button Age," Another important series will be "Style and Vision," five talks by Eric Newton which will be a guide and introduction to the "isms" of modern painting, a whole page being devoted to background information, with names of painters whose work is to be discussed and galleries at which their works can be seen. A note about a new German language series is given and there is also a page which gives details of some of the television programmes of an educational nature to be seen during the Spring quarter.

The National Union of Teachers have contributed the sum of £500 to the Lord Mayor's Fund for Hungarian Relief, the donation to be earmarked for Hungarian children and teachers.

## **Council for Visual Education**

#### 1956 Essay Competition Results

The subject of the Council's Essay Competition for 1956 was "Beautiful Buildings I have Seen," the aim being to encourage boys and girls in three age groups (1) 10-13, (2) 14-15, and (3) 16 and over, to say what they liked best about any buildings large or small and to give reasons for their opinions. Although there were no restrictions on the age or type of building to be described, old churches and cathedrals provided the favourite themes. Very few essays dealt with modern buildings.

Two-hundred-and-fifty-one essays were received but the total number of competitors is not known as many of the entries were sent in by Form Teachers who, presumably, only submitted those they considered best.

Most of the entries were from children in the youngest group; this is explained by the pre-occupation of their elders with preparations for end of term exams., a fact which the Council will bear in mind when timing the next competition. There were more entries from girls than boys in each group.

Education officers and teachers throughout Great Britain gave the Council valuable support and the results indicate that the next competition will be even more successful.

A tribute should be paid to the competitors who displayed such obvious and keen interest in their subject, especially to the thirteen-year-old spastic boy, John Scott, Coventry, from Alloa, who deservedly won first prize in his group and to Rosemary Browne of Much Wenlock, Shropshire, who, in spite of being a diabetic and unable to attend a normal school, was awarded a Highly Commended Certificate in Group 2.

Some of the entries described buildings visited during holidays on the continent and rather surprisingly one competitor wrote about the architecture of India.

A report by two of the judges, both qualified architects, said that the general standard of the essays submitted was very high, and, except for a few entries of exceptional merit, the selection of prize winners in each age-group was an extremely difficult task. Although the quality of the grammar in the majority of the essays left little to be desired, what impressed the assessors most was the maturity and thoughtfulness of the content.

"One hesitates," said this report, "to draw conclusions from the efforts of a relatively small cross-section of British school children, but one is tempted to wonder whether the gradual accumulation of facts and figures tends to discourage young minds from developing an imaginative and creative approach to their visual experiences. A factor which might appear to support this theory was the devastating criticism of modern architecture by a large percentage of the older competitors. Whether this is owing to the influence of their elders, or to the lamentable death of first-class contemporary architecture, or merely to a genuine dislike of modern bulldings in general, is a matter for interesting speculation."

London County Council's Education Committee have approved a proposal to increase the annual grant to London University by £50,000 to £250,000 from 1957 to 1962. The Ministry of Education's approval will have to be obtained.



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## Technical Knowledge and Domestic Science

"The importance of combining technical knowledge with domestic science" was emphasised by Mr. W. F. Houghton, M.A., L.C.C. Education Officer, in welcoming the One-day Conference on the Teaching of Electrical Housecraft arranged by the E.A.W. at Battersea Polytechnic recently.

It was attended by some fifty teachers of domestic science in schools and technical colleges in the London area, the Home Counties and the Midlands. Indeed, some teachers who had been unable to attend similar E.A.W. Conferences in other parts of the country took this opportunity of bringing their knowledge up to date.

A welcome was given by Miss Mary George, M.B.E., E.A.W. Director, and by Miss F. M. Earle, M.H.C.I., Senior Lecturer and Deputy Head of the Hotel and Institutional Management Department at the Polytechnic. Those present also included Miss C. A. Blackmore, L.C.C. Chief Inspector of Housecraft, and Miss Gawthorpe, Domestic Subjects Organiser for Middlesex.

Two of the main sessions were: "The Teaching of Electrical Housecraft in Schools," by Miss M. J. Gordon, M.A., B.Sc., Senior Science Mistress, Godolphin ond Latymer School; and "The E.A.W. Educational Programme," by Miss Vera Norvic, M.R.I., Assistant Secretary, E.A.W.

## **Education in Forestry**

Now that the Forestry Commission has planted the millionth acre of new woodland and planting by private woodland owners is steadily increasing, there is greater need than ever for forest education. The Commission is, therefore, arranging a number of courses for a diversity of "students," including the men who work in the woods and school teachers whose aim is to instruct the younger generation in the importance of trees.

In a comparatively short while woodmen from widely separated parts of the country will be joining courses, which are designed to fit them to take up supervisory posts on the private estates by which they are employed. These courses will be held on the Chatsworth Estate, Derbyshire, by kind permission of the Duke of Devonshire (6th March—17th April, and 24th April—5th June), and the Atholl Estate, Perthshire, by kind permission of Mrs. Campbell Preston (3rd April—15th May). The Commission hopes that employers will, wherever possible, release men for these courses; there are no fees, and board and lodging costs and allowances to men taking part will be met by the Commission.

Courses on woodland management are again being arranged for landowners, agents and factors; such educational facilities have proved popular in previous years, and in 1957 they will once more be provided in England and Scotland. The historic New Forest, where the Commission has a large country residence, will be the venue for two courses, from 25th February to 1st March, and 20th to 24th May, and a third course will take place at the Forester Training School, Faskally House, near Pitlochry, Pershire, from 8th—12th April. Fees are moderate and cover accommodation and board and transport while on the course.

Other courses will be held in the New Forest for Officers of County Planning Authorities (6th—10th May); for those concerned with the management of local

authority woods (13th-17th May); and for school teachers (14th-23rd August).

Applications to take part in the courses should be made to the Chief Education Officer of the Forestry Commission, 1, Princes Gate, London, S.W.7, or, in the case of courses in Scotland, to the Director of Forestry for Scotland, 25, Drumsheugh Gardens, Edinburgh.

## The National Central Library

The annual report of the National Central Library for 1955-56 states that considerable progress has been made by the Implementation Committee formed to consider methods of putting into effect the Recommendations on Library Co-operation, published in 1954. Among the most important of the Committee's recommendations, which have been accepted by the Library and the National Committee, is that January I, 1958 shall be the date at which the National Union Catalogue (compiled at the Library from duplicate entries of the regional union catalogues) will cease to record British books included in the British National Bibliography. It is hoped that by the beginning of 1958 the regional library systems will be self-sufficient as far as current material recorded in the B.N.B. is concerned. A recommendation was also made and accepted that from the same date every region should have a union catalogue of its holdings, in order to avoid wide disparities in the future. Strong support was also given by the Library and the National Committee to a recommendation that there should be a more liberal interlending of books from the reference departments of public libraries.

The existence of an improved supply of works for serious study within the Regional Library Systems of the country and in specialized libraries is the conclusion to be drawn from the reported drop of over 5 per cent. in applications for loans received at the National Central Library. Applications reaching the Library are, therefore, increasingly for the more specialized, rare and expensive works, of which loanable copies are difficult to find. The proportion of applications satisfied was over 70 per cent. Issues, totalling 93,708, included 14,264 issued from the Library's Adult Class Department for the use of organized adult education classes throughout the country.

A steady increase is again reported in borrowing and lending between British and foreign libraries, in which photographic reproduction is also playing a markedly greater part. Loans to East European countries continued on a considerable scale, those to Hungary being almost double. Negotiations for an inter-lending agreement with Russia were renewed with every hope of success. In all, 1,539 books completely unavailable for loan to students in this country were borrowed from foreign libraries, which in their turn borrowed from Britain 2,954 books similarly unavailable in their own countries.

Continued efforts, says the report, have been made to improve and bring up to date the Library's Union Catalogues of books and periodicals held by libraries all over the country, the most important means of tracing works requested on loan.

In particular, a grant of £500 from the Department of Scientific and Industrial Research made possible the virtual completion of work on the Union Catalogue of Russian Books and Periodicals held by libraries in the United Kingdom which are willing to make loans.



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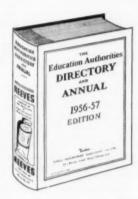
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## FILM STRIP REVIEWS

#### UNICORN HEAD VISUAL AIDS, LIMITED

Cheese—Its Story Down the Ages. Cheese—Its Value as a Food.

Both strips are produced for the Cheese Bureau which accounts for the absurdly low price of 6s, each. The former should certainly find a place in every school; the latter deserves attention in Domestic Science classes and women's organisations. In the story down the ages so much history is touched upon that the strip will serve to link up and revise some of the history that has been taught, and some Geography too. From the early Nomad encampment at the dawn of History we pass to David, with Saul and Absalom; to Zoroaster, the Spartans and Greeks, and thence to the Romans. With the Roman invasion of Britain, we discuss cheese making in more detail. Some interesting facts turn up here-the May day at Randwick Church, cheese-rolling at Cooper's Hill, rents paid in cheese, and the Cheshire custom of testing the strength of the farmer's future bride by asking her to lift with one hand the lid of the parish chest to determine her worthiness as a cheesemaker. Tyler's ' bread and cheese ' is noted and also what Samuel Pepys has to say about 'Suffolk bang.' With a look into a modern cheese factory we come to the restoration of varieties of English cheese after de-rationing of 1954. 31 frames of well executed drawings in colour.

In 'Cheese: Its Value as a Food,' the student is reminded of the three groups of nutrients—heat and energy, tody building and protective foods. Charts are given to compare the protein, calcium and vitamin A contents of cheese with other well-known foods. The value of cheese for babies old-folk and convalescents is discussed. The colourful diagrams and charts are interspersed with attractive

pictures

In connection with these strips, Unicorn Head issue three simple but effective wall charts to show respectively: (1) The food value of cheese in providing protein, calcium energy calories and Vitamin A; (2) Composition of cheese and the daily allowances recommended by the committee on food and nutrition, National Research Council, U.S.A. for men, women and children under or over 12 years of age (3) Cheese as value for money; the weight of protein per pound compared with raw cod, raw beef and eggs. The complete visual unit, 2 strips and 3 charts is obtainable at 15s.

EDUCATIONAL PRODUCTIONS, LIMITED

No. 6211—Hansell and Gretel.—Humperdinck would have loved to have seen his fairy-tale so charmingly illustrated, and we have to thank Michael Myerberg for this novel and outstanding presentation. Ernest J. Tytler has selected stills from the film of the unique 'Kinemins,' those electrically controlled figures capable of reproducing every movement of the humans they ape. There is nothing doll-like in these tiny figures with a charm so characteristically their own, even accentuated in close-up. There is no doubt the children will love these fascinating studies and a strip of this nature is just as ideal for showing in the home as well as in the classroom. 25 frames in colour.

No. 5183—Attila the Hun.—An Ernest J. Tytler production. Through the medium of the film it has been possible to reconstruct events and to reproduce as accurately as possible the military and domestic life of the period, and facts have been checked with the assistance of the staff of the British Museum. The script is full and detailed enough, to portray clearly the character of Attila and his ruthless warfare. A map is included showing the extent of his

empire. This is a useful strip to illustrate the progress of the Barbarian armies in Europe and to outline the history of the fall of the Roman Empire. 26 frames.

## GAUMONT BRITISH

8327 Highlands of the Andes (Peru). 49 frames.

8329 Horsemen of the Pampas. 47 frames.

\$330 French Canadians. 42 frames.

8331—Canada's New Farmlands. 48 frames.

A further four new titles in the Regional and Human Geography series produced by Louis de Rochemont Associates for United World Films Incorporated, New York, and intended for the 11 years and upward. In each case the introduction to the script gives an outline of the physical and climatic conditions of the country with monthly rainfall and temperature details. Then follows suggestions for using the strip and some useful hints for the "follow-up" work. Notes on the frames are brief but at any rate indicate the purpose of each picture and as there is a generous supply of these the teacher may select what will be most useful for his own purposes.

Mr. W. D. Wall, B.A., Ph.D., Director of the National Foundation for Educational Research, is to be President of the Health Education Section of the Royal Society of Health's Annual Health Congress to be held at Folkestone from April 30th to May 3rd.

The Research Board for the Correlation of Medical Science and Physical Education announced that the William Hyde Award of £300, for 1956, has been made to Sqdn. Ldr. C. B. Wynn Parry in recognition of his outstanding contribution in the field of physical medicine in the R.A.F.

Mr. J. D. Carleton has been appointed Head Master of Westminster School. He will succeed Mr. Walter Hamilton, who has been appointed Head Master of Rugby School, as from September 1st next. Mr. Carleton was educated at Westminster School and has been on the staffsince 1932. Mr. Carleton is the first Old Westminster boy to be appointed Head Master of the School since 1828.

All proposals of candidates for the Nobel Peace Prize, which is to be distributed in December of this year, must, in order to be taken into consideration, be laid before the Nobel Committee of the Norwegian Parliament by a duly qualified person before the 1st February. For particulars, qualified persons are requested to apply to the office of the Nobel Committee of the Norwegian Parliament, Drammensvei 19, Oslo.

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An additional post of Chief Inspector of Schools has been created in Scotland to promote the development of further education, particularly on the technical side, and Dr. J. G. Strachan, presently H.M. Chief Inspector in charge of the Western Division (City of Glasgow and Counties of Bute, Argyll and Dunbarton) has been appointed to fill the new post. This post replaces that of H.M. Staff Inspector for Technical Education formerly held by Mr. J. Ferguson, who has retired from the Scottish Education Department to take up a further contract with the U.N. Relief and Works' Agency for Palestine Refugees to which he has been seconded for the past two years.



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